

**ABSTRACT**

At least one aspect of the present invention relates to a system for heating a gas using positive temperature coefficient (PTC) elements. More particularly, aspects of the present invention are directed towards PTC element configurations and orientations. In one aspect of the present invention, PTC elements are interposed between heat sinks such that they transmit current from one heat sink to another. The PTC elements may be arranged in a radial configuration, which may have more than one PTC element per radial flange. The heat sinks may have grilles which allow air to flow perpendicular to the heat sinks and between the PTC elements.